As described in section 5.3.2, the ^{137}Cs data will be used to define the location of the 1954 sediment horizon. This horizon will be compared to the sediment core interval boundaries selected on the basis of the bathymetric data. Verification that the sediment intervals sampled are representative of the intended time periods will be based on whether the radiodating horizon is consistent with the time-stratigraphic interval sampled taking into account the calculated uncertainties.

The accuracy of determining time-stratigraphic horizons was evaluated by an uncertainty analysis performed on the bathymetric data and uncertainty analyses conducted on historic ^{210}Pb and ^{137}Cs radiodating performed on sediment cores. It is anticipated that the sediment core interval boundaries are likely to be accurate to within about ± 3 to 5 years.

If the radiodating information and the sample intervals selected by historic bathymetric and dredging history information do not agree within the uncertainties calculated for the data, then an attempt will be made to assign a time-stratigraphic interval to the sample based on a combination of all available information.

In addition to the dredging history information, bathymetry data, and radiochemical data, an attempt to define additional sedimentation marker horizons will be made. Marker horizons to be considered will include chemical markers (if the chemical is considered to be both stable, and relatively non-mobile in a water-wet sediment environment and if the presence of the chemical can be clearly correlated to an historic event that occurred during a relatively narrow time interval) and lithologic markers which may be identified from the lithology logs to be produced during core processing. Potential lithologic marker horizons include discontinuities in sedimentation caused by dredging such as the 1949 dredging event, where the lithology of the sediments that remained after dredging may differ significantly from the lithology of those subsequently deposited.

If, after these additional techniques are applied, a time-stratigraphic interval can still not be estimated for a given sample, the sample will still have an accurately measured depth interval assigned to it. As such, the chemical characterization data for that sample will be considered usable in meeting the goals stated in the SOW of characterization of the horizontal and vertical distribution of chemicals in the sediments as well as identification of concentrations to assist in a remedy selection.

TABLE 5-1

SUMMARY OF THE 26 1200-FOOT TRANSECT LOCATION SELECTIONS AND ADJUSTMENTS
Passaic River Study Area, New Jersey

Passaic River Reach	Original Transect Locations: Transect Number	Original Transect Locations: Study Area Transect Designation	Adjusted Transect Locations: Transect Number	Adjusted Transect Locations: Study Area Transect Designation	Distance Interval Between Transects (feet)	Distance Transect Moved (feet)	Reason For Transect Adjustment
Point-No-Point	1	6 + 00	1	6 + 00	600	0	
Point-No-Point	2	18 + 00	2	18 + 00	1200	0	
Point-No-Point	3	30 + 00	3	30 + 00	1200	0	
Point-No-Point	4	42 + 00	4	42 + 00	1200	0	
Point-No-Point	5	54 + 90	5	54 + 90	1290	90	Moved upstream to keep the transect spacing as close to the project target (i.e., 1200 feet) as practical
Harrison	6	68 + 10	6	68 + 10	1320	190	Moved upstream to keep the transect spacing as close to the project target (i.e., 1200 feet) as practical
Harrison	7	82 + 10	7	82 + 10	1400	410	Moved upstream of the New Jersey Turnpike and ConRail RR bridges
Harrison	8	89 + 80	8	89 + 90	780	10	
Harrison	9	102 + 00	9	102 + 00	1210	0	
Harrison	10	114 + 00	10	114 + 00	1200	0	
Harrison	11	126 + 00	11	126 + 00	1200	0	
Harrison	12	138 + 00	12	138 + 00	1200	0	
Harrison	13	150 + 00	13	150 + 00	1200	0	
Harrison	14	162 + 00	14	162 + 00	1200	0	
Harrison	15	174 + 00	15	174 + 00	1200	0	
Newark	16	186 + 00	16	186 + 00	1200	0	
Newark	17	198 + 00	17	198 + 00	1200	0	
Newark	18	210 + 00	18	210 + 00	1200	0	
Newark	19	222 + 00	19	222 + 90	1290	90	Moved upstream of the abandoned Center Street bridge
Newark	20	234 + 00	20	234 + 10	1110	10	
Newark	21	246 + 00	21	242 + 00	800	400	Moved downstream of the Stickel Memorial and ConRail RR bridges
Newark	22	258 + 00	22	253 + 60	760	440	Moved downstream of the Clay Street bridge
Kearny	23	270 + 00	23	267 + 70	1410	230	Moved downstream of the abandoned ConRail (Erie-Lackawanna) RR bridge
Kearny	24	282 + 00	24	282 + 70	1500	70	
Kearny	25	294 + 00	25	294 + 00	1130	0	
Kearny	26	306 + 00	26	306 + 00	1200	0	

TABLE 5-2

SUMMARY OF ANALYTICAL SUITES

Chemical Analyses	Radiochemical Analyses	Geotechnical Analyses	Other Analyses
Volatile Organics	^{210}Lead	Grain Size	Total Suspended Solids
Semivolatile Organics	^{137}Cesium	Atterberg Limits	Bed Load
Pesticide/PCBs	^{7}Beryllium	Bulk (Wet) Density	
Chlorinated Herbicides		Dry Density	
PCDDs/PCDFs		Erosion Rate	
Total Extractable Petroleum Hydrocarbons		Compressibility	
Metals and Cyanide		Moisture Content	
Total Organic Carbon			

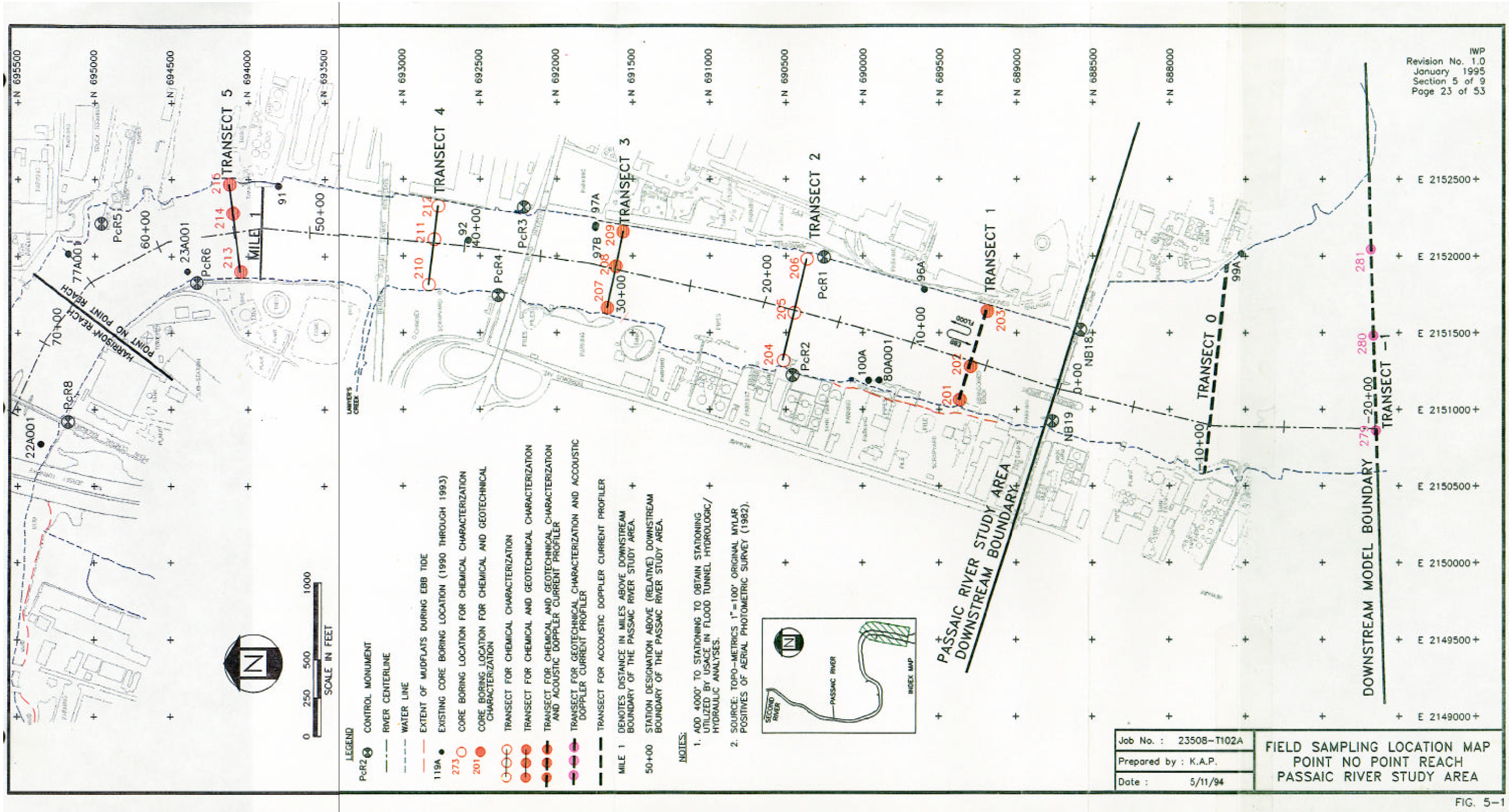

FIG. 5-1